

REMARKS

Claims 1, 16, 17, 20 and 21 have been amended in this paper, and new claim 22 has been added. Claim 2 was previously canceled. After entry of this amendment, claims 1, and 3-22 are pending in the present application. Reexamination and reconsideration of the application as amended are respectfully requested.

The examiner rejected claim 1 under the judicially created doctrine of obviousness-type double patenting over claims 1-12 of U.S. Patent No. 6,602,224 (Simhambhatla). This rejection is respectfully traversed.

Claim 1 calls for an elongated catheter shaft having at least a layer comprising expanded Ultra High Molecular Weight Polyethylene (eUHMWPE). In contrast, claims 1-12 of Simhambhatla '224 are directed to a "balloon for an intraluminal catheter". Therefore, the claims are directed to different components of catheters. As set forth in claim 12 and as discussed in the first paragraph of the Detailed Description of the '224 Patent, the eUHMWPE balloon is bonded to an elongated shaft, and claims 1-12 of the '224 Patent do not set forth a catheter shaft formed of eUHMWPE. Thus, contrary to the Examiner's assertion, all of the elements of claim 1 (calling for a catheter shaft having at least a layer comprising eUHMWPE) are not found in claims 1, 12 of the '224 Patent. For these reasons, applicant respectfully submits that the instant claims are patentably distinct over claims 1-12 of Simhambhatla '224. Applicant respectfully requests that this double patenting rejection be withdrawn.

The examiner rejected claims 1, 3, 8, 10-15, and 17-20 under 35 U.S.C. § 102(e) over U.S. Patent No. 6,602,224 (Simhambhatla). This rejection is respectfully traversed.

The Examiner states that Simhambhatla discloses an intraluminal catheter comprising an elongated shaft 14, the shaft including expanded UHMWPE. However, Simhambhatla does not disclose or suggest a catheter elongated shaft having a proximal shaft section, a distal shaft section which is more flexible than the proximal shaft section,

an inner lumen extending longitudinally therethrough, and at least a layer comprising expanded UHMWPE, as in claim 1. Although Simhambhatla broadly discloses medical devices having at least a component formed of UHMWPE, Simhambhatla explicitly discloses using the UHMWPE only to form catheter balloons or other expandable devices such as vascular grafts and stent covers. Moreover, contrary to the Examiner's assertion, Simhambhatla does not disclose or suggest forming the catheter shaft (i.e., outer tubular member 14) from eUHMWPE. Rather, Simhambhatla discloses that the inflatable balloon 24 bonded to the catheter shaft is formed of eUHMWPE. Because Simhambhatla does not disclose using the UHMWPE to form a catheter elongated shaft having a proximal shaft section and a distal shaft section which is more flexible than the proximal shaft section, applicant submits that the requirements for a rejection under 35 USC § 102(e) are not met, and respectfully requests that this rejection be withdrawn.

Regarding claims 17-20, Simhambhatla does not disclose or suggest a catheter shaft having an outer polymeric layer, an inner liner comprising UHMWPE, and a reinforcing structure therebetween, the outer layer, inner liner, and reinforcing structure being fixedly secured together (as in claim 20), or bonding the tubular inner liner to the polymeric outer jacket and fusing the reinforcing structure therebetween (as in claim 17). Although Simhambhatla does disclose a stent mounted on the UHMWPE balloon, the stent and optional UHMWPE stent cover thereon are releasably mounted on the balloon for implanting within a patient's body lumen, and is therefore not fixedly secured between polymeric layers fixedly secured together.

The examiner rejected claims 4, 5, 6, 7, 9, 16 under 35 U.S.C. § 103(a) over Simhambhatla '224. This rejection is respectfully traversed.

Regarding claims 4-7 and 9, Simhambhatla does not disclose or suggest a catheter elongated shaft having a proximal shaft section, a distal shaft section which is more flexible than the proximal shaft section, an inner lumen extending longitudinally therethrough, and at least a layer comprising expanded UHMWPE, as set forth above.

Regarding claim 16, Simhambhatla does not disclose or suggest a catheter elongated shaft having an inner lumen extending longitudinally therethrough to a port in the distal end of the catheter shaft, a length of about 90 to about 130 cm, and an inner liner comprising UHMWPE and defining the inner lumen. In Simhambhatla, the UHMWPE balloon is bonded to the shaft, and thus does not have a port in the distal end of the catheter shaft. Although Simhambhatla does disclose a catheter shaft 12, comprising outer and inner tubular members 14, 16, Simhambhatla does not disclose or suggest that the catheter shaft is formed of UHMWPE. Additionally, the UHMWPE balloon, vascular graft and stent cover disclosed by Simhambhatla are not an elongated catheter shaft having a length of about 90 to about 130 cm.

Furthermore, as the examiner acknowledges, Simhambhatla '224 is a 35 U.S.C. § 102(e) type reference. Simhambhatla '224 is assigned to Advanced Cardiovascular Systems, Inc. as is the pending application. Accordingly, under operation of 35 U.S.C. § 103(c), subject matter developed by another person which qualifies as prior art only under subsections (e), (f) and (g) of § 102 shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. Applicant represents that these conditions were met and therefore under 35 U.S.C. § 103(c), Simhambhatla '224 cannot be used to reject the pending claims over obviousness. In other words, Simhambhatla '224 cannot be used as prior art under 35 U.S.C. § 103 to reject any of the claims including independent claim 16.

The examiner rejected claim 21 under 35 U.S.C. § 103(a) over Simhambhatla '224 in view of U.S. Patent No. 4,876,049 (Aoyama et al.). This rejection is respectfully traversed.

Since Simhambhatla is a § 102(e) type reference and subject to an obligation of assignment to a common assignee, it cannot be used as a §103 obviousness reference by operation of 35 U.S.C. § 103(c). Therefore, without Simhambhatla '224 as a base reference, this obviousness rejection must fall.

In view of the foregoing, applicant respectfully submits that all claims are now in condition for allowance. Reexamination and reconsideration of the application are respectfully requested and allowance at an early date is solicited.

Respectfully submitted,

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